

From wang!elf.wang.com!ucsd.edu!info-hams-relay Thu Mar 28 01:53:46 1991 remote  
from tosspot  
Received: by tosspot (1.64/waf)  
via UUCP; Thu, 28 Mar 91 05:18:17 EST  
for lee  
Received: from somewhere by elf.wang.com id aa01163; Thu, 28 Mar 91 1:53:45 GMT  
Received: from ucsd.edu by relay1.UU.NET with SMTP  
(5.61/UUNET-shadow-mx) id AA20312; Wed, 27 Mar 91 17:01:12 -0500  
Received: by ucsd.edu; id AA01739  
sendmail 5.64/UCSD-2.1-sun  
Wed, 27 Mar 91 11:24:41 -0800 for brian  
Received: by ucsd.edu; id AA01694  
sendmail 5.64/UCSD-2.1-sun  
Wed, 27 Mar 91 11:24:23 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/  
lqueue -oi -finfo-hams-relay info-hams-list  
Message-Id: <9103271924.AA01694@ucsd.edu>  
Date: Wed, 27 Mar 91 11:24:21 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>  
Reply-To: Info-Hams@ucsd.edu  
Subject: Info-Hams Digest V91 #243  
To: Info-Hams@ucsd.edu

Info-Hams Digest                      Wed, 27 Mar 91                      Volume 91 : Issue 243

Today's Topics:

2m/70cm comparison - revised chart  
a few fundamental questions about RF signals (2 msgs)  
aor 2002 scanner  
Could we put QSL info online? (2 msgs)  
Drake R4C Service Manual?  
DX Bulletin  
DX BULLETIN 14 ARLD014 (2 msgs)  
How do you tell one ZK1 from another?  
IC-24at Sale?  
magazines  
MAJOR GEOMAGNETIC STORM UPDATE #2 - 26 MARCH - STILL STORMING  
Test  
Vacuum tube question/quest (Attn: OOTs & gov't surplus fans)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text

herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 26 Mar 91 10:54:53 GMT  
 From: vtserf!groupw.cns.vt.edu@uunet.uu.net  
 Subject: 2m/70cm comparison - revised chart  
 To: info-hams@ucsd.edu

Here is the chart of 2m/70cm HTs that I posted a few weeks ago. I got an Icom IC-24AT. I am done with the chart, but I will still do updates as time permits. If you have anything to add, just let me know.

Comparison chart of 2m/70cm dual-band HTs -- 26 Mar 1991

Radios included:

Alinco DJ-560T, DJ-500T  
 Kenwood TH-77A  
 Icom IC-24AT, IC-32AT  
 Yaesu FT-470, Reviewed in Sept 90 QST

Radio	DJ-560T	DJ-500T	TH-77A	IC24-AT	IC-32AT	FT-470
RxCov		136-165	138-174	138-174	130-180	
		438-450	440-450	440-450	430-450	
RxSens		0.18	0.25	0.158		
TxCov		140-150	140-150	144-148		
		440-450	440-450	430-450		
FDX	Yes	Yes	Yes	Yes		
X-Band		Yes	Mod			
DualDsp		Yes	Yes	No	Yes	
CTCSS		Yes	Opt	Yes	Yes	
ToneSq		Yes	Opt	Opt		
MemCh	40	20	42	40x2+2	20x2+2	19x2+2
DTMFmem			10x15	4x15	None	10x15
FacPwr		2.5	2.5	5W	2.3W	
PwrSet		2	4	2	2	
Scan	BM	BSML	BML	BML		
Clock			Yes	No		
Saver		Yes	Yes	Yes	Yes	
AP0	Yes	Yes	No	Yes		
MSR		629	629	576		
RCUSA	380		464			
HRO	400	519	474			
AES		520	480	549		

EEB	560	580	399	
Acc	Charg	Charg	Charg	Case
	BeltClp	BeltClp	BeltClp	Charger
	KbCov		BeltClip	

#### Features:

- Scan: B - band
  - S - skip during band scan
  - M - scan memory channels
  - L - Lock out memory channels during scan
- APO: Automatic power off
- Saver: Battery saving monitor mode
- Tone Sq: DTMF operated tone squelch
- Mem Chan: channels x freq/channel + calling channels
- FDX: Cross-band full duplex
- X-Band: cross-band repeat
- DualDisp: Dual frequency Display
- FacPwr - Transmit power from factory, all of these units are 5W with 13.6V
- PwrSet - Number of transmit power settings
- MSR - Manufacturer's Suggested Retail
- RCUSA - Radio Center USA
- HRO - Ham Radio Outlet
- AES - Amateur Electronics Supply
- EEB - Electronic Equipment Bank

#### Other features:

The following information is based on things I have seen on the net and may not necessarily work. I have also put comments that don't fit in the chart in this section.

- Kenwood TH-77A
  - 2m section is modifiable for MARS/CAP
  - can be modified for 118-165MHz Rx
  - dual UHF receive
- Icom IC-24AT
  - A diode will extend UHF transmit range to 410-485
  - A diode will extend VHF transmit range to 138-168
  - Keyboard entry can enable 100-1000MHz Receive (diode has to be removed on older models).
  - A diode can be removed to allow cross-band repeat

#### Icom IC-32AT

Simple mods for RX on 138-168 and 418-458. Tx on those ranges with a bit more work.

- Yaesu 470
  - There is a mod for transmit on 140-174
  - Several people have mentioned that the backlit keyboard is a nice feature.

Phil Benchoff  
benchoff@groupw.cns.vt.edu

-----  
Date: 27 Mar 91 17:54:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: a few fundamental questions about RF signals  
To: info-hams@ucsd.edu

> Both light and radio are electromagnetic waves,  
> but the vast difference in frequency gives them vastly different properties.  
> Because of this, the technologies for generating and detecting the different  
> waves are so different that the similarity is hard to see.  
>  
> There's another realm between radio and light, the infrared. IR is

It might be useful to add here that astronomers and atmospheric scientists frequently build heterodyne infrared receivers. Mike Mumma & colleagues at NASA/Goddard have pioneered this work. Very similar technology to heterodyne radio receivers, except for the differences of mixing and detecting. But infrared detectors are still solid state diode-type devices. So... do you call infrared RF or light? The point is that there is a somewhat smooth (or maybe I should say "piecewise continuous" for you mathematician-types) transition between RF detection and light detection. Step functions along the way, but not just one big step function between  $4 \times 10^9$  and  $5 \times 10^{14}$  Hz! And I wouldn't necessarily say that the similarities are hard to see.

steve W3GRG

-----  
Date: 27 Mar 91 18:19:24 GMT  
From: mojo!chuck@mimsy.umd.edu  
Subject: a few fundamental questions about RF signals  
To: info-hams@ucsd.edu

In article <7087@mace.cc.purdue.edu> dil@mace.cc.purdue.edu (Perry G Ramsey) writes:

>In article <9171@plains.NoDak.edu>, kkim@plains.NoDak.edu (kyongsok kim) writes:  
>> I wonder if the  
>> same RF signal can travel either through copper wire or through air. In  
>> other words, is there no difference between RF signal (say, for channel  
>> 4) that my TV receives from the air and RF signal (say, for channel 4)  
>> coming from CATV company through cable?

>  
>None at all, except that one is an electromagnetic wave traveling through

>the air and the other is an alternating current traveling through a  
>wire.

I'm sorry Perry, but you are wrong. The "signal" travelling thru the coax  
is an electro-magnetic wave.

The only significant difference between it, and the one travelling thru the  
air is the speed of propagation. E-M waves travel slower in any medium other  
than free space. (eg. vacuum).

>

>Additional comments or flames welcome.

>--

>Perry G. Ramsey                      Department of Earth and Atmospheric Sciences  
>dil@mace.cc.purdue.edu              Purdue University, W. Lafayette, IN USA  
>perryr@vm.cc.purdue.edu              \*\*\* IMAGINE YOUR LOGO HERE        \*\*\*\*\*  
>     Ten thousand low-lives a day read this space.

Chuck Harris - WA3UQV  
chuck@eng.umd.edu

-----  
Date: 27 Mar 91 17:32:32 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: aor 2002 scanner  
To: info-hams@ucsd.edu

From: Colin Schmutter

I am using an aor 2002 scanner to receive polar orbiting fax signals.

While reception is satisfactory, the IF bandwidth appears to be too  
wide in wideFM mode. Strong local signals are breaking through into  
the IF strip causing interference and distortion. The IF bandwidth is rated  
at +/- 50 khz. I think that by narrowing the IF bandwidth in WFM mode  
the problem may be reduced.

Does anyone know of mods to do this and of other mods to improve fax  
reception?

COLIN SCHMUTTER  
NETWORK TECHNICIAN, COMPUTER RESOURCES : 432 - 8858

-----  
Date: 26 Mar 91 15:36:41 GMT  
From: dog.ee.lbl.gov!hellgate.utah.edu!fcom.cc.utah.edu!cc.utah.edu!cc.usu.edu!

slp9m@ucsd.edu  
Subject: Could we put QSL info online?  
To: info-hams@ucsd.edu

Information from the W6GO/K6HHD QSL Managers List is currently available on packet clusters and the publishers have said that this will be permitted as long as subscriptions to the List do not drop off. I wonder if it would also be possible to put this info on the net, under the same type of arrangement.

Simply posting the List would definitely not be the way to go as it would chew up big time bandwidth and even the budding, young, over enthusiastic DXer who is spending 18 to 20 hours per day on the air and has zero countries confirmed will not use 1% of the information contained in any one issue. The way to go would be a mail based, or even an interactive server. I am not in a position to put such a thing together, but would be willing to volunteer any assistance I am able to render to such a project.

I really do not know if this is even a realistic idea. I would like to see some comments from the net. (Also, any other volunteers??)

```
#####  
#          Scott E. Parker   WA7VYJ          # INTERNET: SLP9M@cc.usu.edu   #  
# Center for Atmospheric & Space Sciences # Twisted pair: (801) 750-2975  #  
#          Utah State University          #          Home: (801) 753-3924  #  
#          Logan, UT      84322-4405      #          #  
#####
```

-----  
Date: 27 Mar 91 15:07:11 GMT  
From: pa.dec.com!rust.zso.dec.com!shlump.nac.dec.com!mast.enet.dec.com!  
reisert@decwrl.dec.com  
Subject: Could we put QSL info online?  
To: info-hams@ucsd.edu

RE: W6GO list

I think the machine hosting the data would have to pay a subscription fee to W6GO, or something like that. I'm sure he doesn't provide this service to the PacketCluster (tm) users (sysops) for free. I guess people on the net could contribute to a fund, though, much like the Buckmaster tapes that Rusty puts together.

- Jim AD1C

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"The opinions expressed here in no way represent the views of Digital Equipment Corporation."

James J. Reisert                      Internet: reisert@mast.enet.dec.com  
Digital Equipment Corp.              UUCP:        ...decwrl!mast.enet!reisert  
146 Main Street                      Voice:       508-493-5293  
Maynard, MA 01754                  FAX:        508-493-????

-----  
Date: 26 Mar 91 05:51:07 GMT  
From: hpdal!hpcupt1!hprnd!hprpcd!stan@hplabs.hpl.hp.com  
Subject: Drake R4C Service Manual?  
To: info-hams@ucsd.edu

For manuals, parts (some), and service (yes they still service them),  
try

R.L.Drake Co.  
540 Richard St.  
Miamisburg, Ohio 45342  
(513) 866-3211

I got a manual for my R4C from them last fall and yes, the owners  
manual is the service manual! Also, don't forget to give them your  
serial number. According to the guy I talked to, there are 4 diferent  
versions of the R4-C, depending on when it was made and what  
engineering changes were incorporated. Good luck

~~~~~  
~ Stan Witherspoon                      ~ Disclaimer                      ~  
~ Systems Technology Division ~~~~~~  
~ Hewlett Packard Company              ~ These are my                      ~  
~ 8010 Foothills Blvd.                      ~ personal opinions                  ~  
~ Roseville Ca. 95678                      ~ and do not represent ~  
~ Phone: (916) 785-5071                      ~ the views of anyone                  ~  
~ RF: N6SCE                                  ~ or anything else                      ~  
~ Email: ucbvax!hplabs!hprpcd!stan                      ~  
~~~~~

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Date: 27 Mar 91 15:52:22 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: DX Bulletin  
To: info-hams@ucsd.edu

The Ohio/Penn Dx Packet Cluster  
DX Bulletin No. 003 (OPDX.003)  
March 25, 1991  
Editor Tedd Mirgliotta, KB8NW  
Provided by BARF-80 BBS Cleveland, Ohio  
Online at 216-237-8208 2400/1200/300 8/N/1

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association K8AAI, W8GMH, WB3LHD, KA8MVJ, WK3N, NQ8S, K8YSE and K8YVI for the following DX information.

5X, UGANDA. It was reported, on the INDEXA net on 14236 KHz, John, PA3CXC, will be in 5X land in about 2 weeks. He will try to get a license there and active 5X. (KYFC)

70, YEMEN. Great News. It seems the logs for the 701AA Dxpediton were found intact at the home of 9K2CS in Kuwait. The logs have been sent to Gabby, DL2BCH, and anyone that hasn't received their 701AA cards should resubmit to DL2BCH.

9K, KUWAIT. 9K2SH has been active again on 21335 around 2200Z and he has also reported that the Kuwaiti QSL Bureau was totally destroyed in Kuwait city. Records, cards and logs were all lost. By the time you read this, 9K2SH may be in A7 land. QSL 9K2SH to OE6EEG.

9N, NEPAL. Denny, GW3CDP, expects Father Moran, 9N1MM, to begin showing up on the 21335 Net around 1400Z. During the net, Denny has been calling frequently on a daily basis for the 9N1MM.

AP, PAKISTAN. John, K8YSE, reports a sure way to receive QSL cards from AP2JZB by using the K2EWB method. He said to send the cards in an unsealed envelope to Pakistan, but send a donation to K2EWB. John said he received his cards direct from Pakistan with an acknowledgment that he had sent a donation to K2EWB. Turn around time for the cards were 7 weeks.

CY9, ST. PAUL ISLAND. Pat, FP5DX, QSL Manager for the CY9CF operation of last year says the QSL cards are at the printers now. About 12,000 QSO's were made and cards will be going out as soon as they reach Pat sometime in April.

EP, IRAN. There was a report on March 18 of a station signing EP2HZ on 14156.8 at 0357Z. Even if this station is in Iran, their government still has a ban on Amateur Radio and the DXCC Desk will not accept this operation.

ET, ETHIOPIA. JACK, W4IBB, signing ET2A, continues to be very active. Jack was heard saying he will be leaving on March 30, but would return



sometime in May. He said he will try operating some CW upon his return. K8YVI also heard Jack mention logs were being sent stateside on March 12. Rumors still persist that John, PA3CXC, will be activating this one.

FT4W, CROZET. FT4WC has become active again and showing up on a net on 28510 KHz around 1530 to 1700 UTC. QSL via F6GVH.

PY0, ST. PETER & ST. PAUL ROCKS. Info from Claude, PY4VB, stated the operations on 10 meters on FEB. 14 and MAR. 18 by a PY0PT were undoubtedly the work of a SLIM. The operator Bill, gave his QSL route as P.O. Box 63003, 02699 Sao Paulo Brazil. Claude is attempting to find out who belongs to the Box number. For now save your money and WFWL. As for the real Dxpedition, JH1AJT, DJ9ZB, PY5AKW, PS7KM and PY4VB will active PY0 for 10 days beginning May 9-11. They will have 2 stations on the air at the same time and will operate 6-80 meters, including the WARC bands, on SSB and CW. They will try for 160 meters and RTTY if possible. Due to the extreme heat and humidity, logging will be done on paper instead of a computer. Each operator will have their own callsign similar to the Trindade operation. PY4VB says the QSL route will be PS7KM.

S2, BANGLADESH. Prior to publication, Bruce, N8JDX, heard Jim Smith, VK9NS, state he was heading for S2 Friday. Jim will be meeting and talking with Bangladesh official Saturday March 23. Jim is skeptical about the talks, but reminds us to keep listening to the HIDXA Net on 14222 KHz for further information.

XQ0X, SAN FELIX. QSL Manager Mickey, CE3ESS, for the XQ0X operation has stated he has the logs up to the 21st of January and cards for those QSO's will be out around the end of the month. The first 10,000 cards that QSL will receive an actual photograph. A QSL card with the photograph printed on it will be used after they run out of the photo QSL's. (FCFS)

ZS8, MARION ISLAND. Reports say, Gerard, ZS8MI, will concluded his one-year stint on Marion Island this coming May. Recent QSN reports has him on 3790 KHz at 0215Z, 14226 KHz at 2330Z, and 14020 at 1300Z. QSL to: G. Everett, Box 13077, Jacobs 4026, Natal, R.S.A

IN THE MAIL. The following QSL cards that have been received in the mail: C9EC, XU0AA, 5R8GN, 708AA and 9U5QL.

DAYTON REMINDER: Don Search, W3AZD, the ARRL DXCC Manager, will be at the Dayton Hamvention to check QSL cards for DXCC endorsements. Don said he will only check 25 QSL cards for endorsements. This will help process cards for more people than in the past.

Good Luck on DX de KB8NW

Excerpts and distribution of The OPDX Bulletin are granted as long as OPDX/BARF80 receive credit. To contribute DX info, call BARF-80 BBS online at 216-237-8208 2400/1200/300 and leave a message with the Sysop or send a message via packet to KB8NW @ WA8BXN.OH.USA.NA

73 -- marty -- nr3z skitch@nadc.navy.mil

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Date: 27 Mar 91 13:59:43 GMT  
From: sdd.hp.com!spool.mu.edu!uwm.edu!linac!att!cbfsb!cbnewsb.cb.att.com!  
feg@ucsd.edu  
Subject: DX BULLETIN 14 ARLD014  
To: info-hams@ucsd.edu

In article <1991Mar22.185147.5028@n8emr.uucp> gws writes:

>  
>YEMEN, 70. Gabbie, DL2BCH, tells us that she has the logs for  
>701AA. She asks us to remind you that German airmail postage is  
>almost two dollars. Cards for the operation of 708AA are currently  
>being received here. Both 9K2CS and F6EXV plan to be in Dayton  
>the end of April, 1991.

Who is the QSL mgr for 708AA?

Forrest Gehrke feg@dodger.att.com

-----  
Date: 27 Mar 91 15:02:52 GMT  
From: decrcrl!news.crl.dec.com!shlump.nac.dec.com!mast.enet.dec.com!  
reisert@decwrl.dec.com  
Subject: DX BULLETIN 14 ARLD014  
To: info-hams@ucsd.edu

In article <1991Mar27.135943.25364@cbfsb.att.com>,  
feg@cbnewsb.cb.att.com (forrest.e.gehrke) writes...

>  
>Who is the QSL mgr for 708AA?

Paul, F6EXV. He has supposedly mailed all US cards by now (I got mine).

- Jim AD1C

=====  
"The opinions expressed here in no way represent the views of Digital  
Equipment Corporation."

James J. Reisert                      Internet: reisert@mast.enet.dec.com  
Digital Equipment Corp.              UUCP:        ...decwrl!mast.enet!reisert  
146 Main Street                      Voice:       508-493-5293  
Maynard, MA 01754                   FAX:        508-493-????

-----  
Date: 26 Mar 91 15:25:04 GMT  
From: dog.ee.lbl.gov!hellgate.utah.edu!fcom.cc.utah.edu!cc.utah.edu!cc.usu.edu!  
slp9m@ucsd.edu  
Subject: How do you tell one ZK1 from another?  
To: info-hams@ucsd.edu

If you work a ZK1 you cannot find a QTH for in the callbook, is there any  
way to tell, after the fact, whether you've worked the North Cooks or South  
Cooks? I really do not want to go to the bother of extracting a QSL from a  
foreign manager only to find out its not the one I need.

#####  
#           Scott E. Parker    WA7VYJ                    # INTERNET: SLP9M@cc.usu.edu        #  
# Center for Atmospheric & Space Sciences # Twisted pair: (801) 750-2975    #  
#           Utah State University                    #           Home: (801) 753-3924    #  
#           Logan, UT       84322-4405                #                                #  
#####

-----  
Date: 27 Mar 91 13:48:14 GMT  
From: sdd.hp.com!wuarchive!swbatl!ken@ucsd.edu  
Subject: IC-24at Sale?  
To: info-hams@ucsd.edu

Just a note for anyone looking for a new dual band handheld. I've  
been looking at the lower cost dual-ht's and comparing features while  
fretting over Icom's high prices. On a random call to Madison Electronics  
(Houston) I found the IC-24at on special for \$395. This was yesterday  
(3-27-91). Are we seeing a new strategy by Icom, with high normal prices  
and random sales?  
Ken - WBOQNA

-----  
Date: 26 Mar 91 23:22:49 GMT

From: hpcc05!hpsciz!rkarlqu@hplabs.hpl.hp.com  
Subject: magazines  
To: info-hams@ucsd.edu

> / hpsciz:rec.radio.amateur.misc / rtaylor@ux1.cso.uiuc.edu (Roger Taylor) /  
11:10 am Mar 25, 1991 /  
> I have complete set of 73 Magazines, including first issue, except missing one  
oor two. I also have a complete set of Ham Radio. I have heard the first issue  
> of 73 was worth a couple hundred dollars. Anybody have any idea what these sets  
> might be worth and to whom? K9ALD 217-586-4958  
> :wq  
> -----

I think not. I tried to sell a complete run of the first  
10 years of 73 including the first issue at an electronic  
flea market last year for \$10.00 and was unable to sell  
them. At \*least\* 500 people visited my space, a lot of  
them hams. On the other hand, I routinely make several hundred  
dollars selling "junque" every time I go out there, so I  
know this is a valid flea market. I ended up giving them  
away to a friend who put them on a shelf where they have  
now sat for a year without being read. Good luck.

Rick N6RK

-----  
Date: 26 Mar 91 18:45:16 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: MAJOR GEOMAGNETIC STORM UPDATE #2 - 26 MARCH - STILL STORMING  
To: info-hams@ucsd.edu

/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\

GEOMAGNETIC STORM UPDATE

/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\

18:30 UT, 26 March

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STORM UPDATE INFORMATION:

Minor to severe geomagnetic storming has been observed over the past  
twelve to fourteen hours over middle latitudes. A period of very intense  
and rapid magnetic pulsations were observed between 13:00 UT and 14:10 UT.

Other middle latitude stations have also reported severe storming during this period. The geomagnetic field has calmed down somewhat as of 18:00 UT, although intensification back to storm levels is expected by 24:00 UT on 26 March.

Geomagnetic activity is expected to remain at minor to major storm levels for the next 24 to possibly 48 hours. Periods of major to severe storming remain possible through the UT day on 27 March. However, for the most part, minor storming should dominate.

Auroral activity may be possible to observe at low latitudes tonight (27 March, UT time) for North American observers, although the phase and luminosity of the moon will make observations very difficult.

VHF and/or UHF auroral backscatter may also be possible tonight over southerly middle and low latitudes.

Polar and high latitude signal blackouts will continue for the next 24 hours at least. Periodic near-blackout conditions are still possible over middle latitudes as well.

Current projections estimate a return to more normal propagation conditions with quieter geomagnetic and auroral activity on 28 or 29 March. Overall geomagnetic activity is declining slowly, but periods of strong activity are still evident. The best periods to attempt HF propagation are between 9 am and 3 pm local time, particularly for southerly signal paths (or northerly paths for southern hemisphere operators). Northerly paths can be heavily affected by absorption. Eastward and westward paths are unstable during these periods due to transitions in the diurnal magnetic and ionospheric activity.

The next update will be posted near 06:00 UT on 27 March.

The following alerts remain IN PROGRESS until at least 18:00 UT, 26 March:

- MAJOR GEOMAGNETIC STORM ALERT
- GEOMAGNETICALLY INDUCED CURRENT (GIC) ALERT
- LOW LATITUDE AURORAL ACTIVITY ALERT
- SATELLITE PROTON EVENT ALERT
- POLAR CAP ABSORPTION EVENT ALERT
- POLAR AND HIGH LATITUDE RADIO SIGNAL BLACKOUT ALERT

The following warnings are IN PROGRESS:

- POTENTIAL MAJOR SOLAR FLARE WARNING
- POTENTIAL PROTON FLARE WARNING

Date: 27 Mar 91 14:28:47 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Test  
To: info-hams@ucsd.edu

Date: 26 Mar 91 15:39:04 GMT  
From: dog.ee.lbl.gov!hellgate.utah.edu!fcom.cc.utah.edu!cc.utah.edu!cc.usu.edu!  
slp9m@ucsd.edu  
Subject: Vacuum tube question/quest (Attn: OOTs & gov't surplus fans)  
To: info-hams@ucsd.edu

I have a Navy surplus LF/VLF/MF receiver (14 to 600 kHz), type AN/FRR-21. It was operational when I purchased it but has since died. I traced the problem to a dead tube.

The tubes are tiny little things with wires for pins. They are held to circuit boards with clips and the "pins" are soldered onto terminal posts. I have a manual and it designates the tubes with numbers like 5899, 5636, 5719 or 5840 (it's the 5840 that's dead).

Several industrial electronics catalogs list tubes with these numbers. However, I suspect, perhaps unfoundedly, that tube numbers in military equipment may not correspond to the same tube that bears that number in the world of industrial electronics. I hope I'm wrong, but before I place an order, I need to have someone who knows tell me I am wrong. It is not at all convenient for me to go to the supply house and look before I buy.

Another question arises. When I had the receiver open looking for the problem, it became apparent that figuring out which "pin" was which on one of these little guys could be very difficult. Is there some trick to figuring these tiny tubes out that someone would care to share with me?

If anyone has one of these things that they would like to unload, E-mail me with the details.

```
#####  
#          Scott E. Parker    WA7VYJ          # INTERNET: SLP9M@cc.usu.edu      #  
# Center for Atmospheric & Space Sciences # Twisted pair: (801) 750-2975  #
```

# Utah State University # Home: (801) 753-3924 #  
# Logan, UT 84322-4405 #  
#####

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Date: 27 Mar 91 17:35:05 GMT  
From: tgv.com!garlough@ames.arpa  
To: info-hams@ucsd.edu

References <RICHV.91Mar21163839@hpinddr.cup.hp.com>, <21416@shlump.nac.dec.com>,  
<941@nddsun1.sps.mot.com>  
Reply-To : tgv.com (Trey Garlough)  
Subject : Re: Straight keys vs. iambic

In article <941@nddsun1.sps.mot.com>, waters@nddsun1.sps.mot.com (Mike Waters) writes:

|Actually I doubt if many people use keyboards for 40+ wpm since you also  
|need to receive the CW. If you are automatic at BOTH ends then RTTY etc.  
|is much better. In my experience most of the high speed operators use  
|keyers of one sort or another - usually iambic as you note.

I guess it depends what is meant by "high speed operators." It takes  
a bit of effort to send 40 WPM with a keyer, but there are a lot of  
people out there doing it. It takes a lot of effort to send 50 WPM  
with a keyer, and even those who can send that fast have trouble  
sustaining those speeds. On the other hand, it is virtually effortless  
to send 50 WPM with a keyboard, especially if you start "typing ahead"  
while the other station is still transmitting.

My observation has been that most of the \*really\* fast CW operators  
use keyboards to send and receive by ear.

--  
Trey Garlough, WN4KKK

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End of Info-Hams Digest  
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